



Draft Responses to the Issues Raised by the Value Analysis Team

The text below is from the Value Analysis Report. Responses, in *italics*, follow each item

LINE ITEM MAJOR ELEMENT RECOMMENDATIONS

Major Recommendation #1: Transportation Demands Management (TDM) Program Effectiveness

The VA Team recognizes TDM as an important part of the I-405 Program both for mitigation during construction and as an on going effort to enhance mobility in the corridor.

The VA Team has the following specific recommendations to ensure the TDM program's effectiveness:

- Build upon successful programs such as the U-Pass and Metro's Flex Pass.

Funding for incentives and demonstrations related to expanding FlexPass programs are included within the TDM Program (the U-Pass program is like the ultimate FlexPass program).

- Locate commuter parking as close as practical to trip origins - By intercepting SOV commuters upstream, VMT will be reduced and transit and HOV use will increase.

This is what would be done, to the degree possible, although it needs to be recognized that trips don't just come into the corridor, they also leave it. So, in effect, new commuter parking may be located throughout the corridor.

- Consider developing additional permanent Park & Ride facilities. Smaller leased lots are usually highly cost-effective, but they may not be sufficient to accommodate all the carpool/vanpool demand generated by TDM programs.

This is being considered, as is increasing funds for leasing lots to ensure an adequate number of spaces.

- Direct TDM funding toward the most cost-effective programs and services. Decisions on allocation will need to be reviewed based on performance.

Initially, most funding would be focused on expanding TDM strategies that have a proven track record; however, there will be funds available to undertake demonstrations of new and promising strategies. The Steering Committee which would be created to oversee the TDM Program on an on-going basis would have the ability to reallocate funds over time as results of the various program strategies are evaluated.

Major Recommendation #2: Bus Rapid Transit (BRT)

The VA Team believes that Bus Rapid Transit (BRT) is a viable high capacity transit option in the I-405 corridor; therefore, a decision on whether or not to proceed with BRT must be made in the near term.

The VA Team made the following recommendations to ensure that a freeway based BRT system adequately serves the population and employment centers in the I-405 corridor:

- Construct projects that provide appropriate speed and improve reliability where the core BRT route will run on arterial streets.

Arterial HOV improvements have been identified in various of the alternatives considered. Many of these improvements, of course, are on local streets not controlled by WSDOT or other lead agencies.

- Incorporate methods to provide access from the I-405 BRT to activity centers such as UWB/CCC, Factoria, downtown Kirkland, and Southcenter.

The plan includes transit connections between the BRT and each of the activity centers identified. Some of these connections have direct access to the BRT facility, while others provide transfer opportunities. Additional access improvements could be examined during project-level planning and design.

- Consider use of the Burlington Northern/Santa Fe (BNSF) right-of-way and other existing and possible exclusive right-of-way in addition to the I-405 mainline.

This VA Team recommendation is under consideration.

Major Recommendation #3: BNSF Right-of-Way

The VA Team recommends the preferred alternative include the use of the BNSF right-of-way for transportation purposes. Potential uses to be addressed in the preferred alternative should include:

- Bus way
- Passenger Rail
- Bike/Pedestrian Corridor
- Construction traffic mitigation and/or as a construction haul route

In particular, the BNSF, or any other existing and possible exclusive right-of-way should be examined for BRT feasibility with the goals of:
Improving access to activity

The alternatives included in the DEIS include the analysis of the use of the BNSF Right of Way (ROW.) for the transportation purposes this report has identified. The Project has not yet considered the use of the ROW for a construction haul route. Based on discussions related to the Preliminary Preferred Alternative it is likely that use of this ROW for future transportation purposes will be part of the recommendation. It is also likely that it will be used for different purposes in different sections of the corridor. While the City of Kirkland has expressed some interest in exploring near term use as part of a core HCT system (rail or BRT type service), Renton has formally objected to use of the of the ROW for motorize travel.

The use of this ROW for construction activity will be considered in future project level studies. It is unlikely that this type of use would be considered in residential areas unless it was adjacent to an existing roadway.

Major Recommendation #4: Lane Balance

The VA Team questions the PPA's proposal to add two additional lanes north of I-90 but only one additional lane south of I-90. The VA Team recommends the development of the preferred alternative include consideration of additional lane capacity south of I-90. The VA Team's rationale for this recommendation are as follows:

- Roadway volumes are similar south of I-90 compared to north of I-90.
- There appears to be significant benefit to the freeway's performance for the cost of adding additional lane capacity
- A third lane south of I-90 will offer additional regional congestion relief by diverting more north-south trips from I-5 to I-405 such as freight from SR 167 going to the north.

This conclusion is generally supported by the sensitivity testing conducted in the I-405 sections to the south of I-90. Further examination of the traffic flow data indicates that the congestion benefit to the south with an added lane may be somewhat offset by further delays to the north of I-90. The environmental effects of added lanes have also not been fully documented. The analysis also indicates the biggest area of concern might be the section

between NE 44th and Coal Creek Parkway, not the sections further south. Further examination of these effects would be desirable.

The project team suggests that this recommendation be broken into two components:

- 1. Lane Balance between segments: The data support the recommendation to provide more capacity to the south of I-90 as a way to 'catch up' with the capacity provided to the north.*
- 2. Need for three lanes each direction to the south of I-90: Lane balance aside, providing additional capacity to the south of I-90 would certainly help reduce congestion. However, those benefits have not been fully analyzed in comparison with the rest of the I-405 corridor. The diversion of I-5 trips is a likely outcome, but has not been specifically modeled or analyzed.*

Major Recommendation #5: Managed Lanes

The VA Team recommends the inclusion of a plan for two managed lanes in each direction in the preferred alternative. The VA Team recommends buffers be considered as a component of any lane management option. These buffers, along with any needed barriers, and access configurations, may all require different footprints. The potential impacts of these options should be studied in this corridor EIS to ensure that appropriate managed lane options are not precluded by the corridor decision.

To be effective, managed lanes will need to be implemented for a long distance, and therefore should be planned in more detail at the corridor level and not deferred to project-level documents. Whatever method of lane management is chosen, the long-term success of lane management will depend on ensuring that optimal facility performance is achieved by adjusting the use of the lanes to maintain the designed operation.

The I-405 plan is investigating the potential for a managed lane system within the freeway corridor. The likely managed lane design and operation, if implemented, would be similar to the recommendation of the VA team above. The transportation and environmental impacts of a managed lane system, if selected for the Preferred Alternative, will be evaluated in the Final EIS

Major Recommendation #6: Transit Cost & Performance

The Value Analysis Team has the following transit cost and performance recommendations:

- The demand for and location of new transit centers should be verified and warranted.

The transit centers included in the plan are primarily those previously identified by Sound Transit and King County. The locations are reasonable given the type of transit service envisioned in the PPA. Certainly the specific location and sizing of these centers can be refined during project-level planning and design. WSDOT may wish to consider forwarding this recommendation to those agencies that have the responsibility for planning, designing, implementing and operating transit centers in the I-405 corridor.

- The alternative should consider the cost-effectiveness of offering incentives, such as lower fares.

The TDM strategy includes a wide variety of transit and alternative mode incentives. Lower fares are not specifically identified in the TDM strategy, but could be considered as the program develops. WSDOT may wish to consider forwarding this recommendation to those agencies which have the responsibility for operating public transportation services in the I-405 corridor.

- A further analysis and development of the eastside transit network is required to better serve future transportation demand. The transit network assumed in the modeling does not appear to have been optimized.

The I-405 program used the established PSRC long-range transit network and service plan as a base for modeling purposes. This network was modified as appropriate to fit the particular transit service concepts being evaluated in the I-405 corridor. King County and Sound Transit staff were actively involved in defining the BRT concept included in the PPA. Transit network refinements are likely to be proposed in the FEIS and during project-level planning and design.

Major Recommendation #7: Freeway & Arterial Connections

The VA Team recommends providing HOV to HOV connections in all quadrants at the following freeway interchanges:

The I-405 project team identified the most likely combination of HOV to HOV connections based upon travel demands and the results of previous HOV studies in the corridor (e.g. HOV Predesign Studies, WSDOT, 1995). The

connections, listed below, do not seem to be warranted based upon expected demand in 2020/30. The team also acknowledged the high cost and difficult design requirements of trying to provide for full HOV to HOV movements at every interchange. It would be prudent to design these interchanges to allow the potential for such connections in the future.

- I-405/I-5 (Tukwila)

The PPA diagram incorrectly omitted the NE quadrant of this interchange, which is correctly identified in the PPA text. The missing quadrant is the SW quadrant, which is expected to have low HOV demand.

- I-405/I-90

The SE quadrant was not included due to relatively low HOV demand. This quadrant deserves some additional attention as growth occurs to the east along I-90.

- I-405/SR 520

The NE quadrant was not included due to relatively low HOV demand and difficult design limitations. Efforts are being made in the design of this interchange not to preclude future HOV expansion at this location.

The VA Team had the following recommendations for freeway to arterial connections:

- Provide HOV/transit access at I-405/NE 160th interchange in conjunction with expansion of the Brickyard Park and Ride lot.

This location should be considered during the design phase of the BRT system.

- Provide direct access to and from the north to best serve the transportation needs of UWB/CCC and the Bothell business park (in the vicinity of SR 522, NE195th St., 240th St. SE).

The recent design concepts are examining HOV access at both SR 522 and SE 240th interchanges. Access directly at NE 195th St appears to be problematic due to limited right-of-way and proximity to wetlands.

OTHER RECOMMENDATIONS

1. Phasing and coordinating of projects and services to improve system movement during I-405 construction.

The PMT concurs with this recommendation. Initial efforts are underway to develop a phasing plan that considers advance right-of-way purchase; early utility relocation; assuring transit service, TSM/TDM and ITS elements are in place; and, completing early environmental mitigation. Proposed improvements on parallel and connecting arterials will be coordinated to assure they do not complicate traffic movements and system performance. Roadway projects will require development of a "work zone construction management plan" that considers how movement of people will be accomplished during construction.

2. Address access to downtown Bellevue

The PMT is working closely with the City of Bellevue in development of the Bellevue Downtown Access and downtown strategic plan efforts. The I-405 design through and to downtown Bellevue is being refined to include strategies that are mutually agreeable.

3. Coordination with Trans-Lake and other transportation plans and projects.

The PMT is working closely with the TransLake Washington team in development of the I-405 plans and conceptual designs. The team has also coordinated with other jurisdictional transportation plans and the PSRC Metropolitan Transportation Plan.

4. Acquire right-of-way early to avoid possible costly compensation at a later date.

Opportunities for advance right-of-way purchase under State and local agency guidelines will be pursued. WSDOT has a revolving right-of-way fund that can be used for this purpose.

5. Encourage innovation in reducing impervious surface/run-off.

Project-level design for stormwater run-off will be challenging. WSDOT has encouraged pilot projects for new technologies and innovative methods. It is expected that Best Management Practices (BMPs) and innovation for treating stormwater run-off will be incorporated where appropriate.

6. Consolidate access points through the use of auxiliary lanes and/or CD systems to reduce mainline GP lane congestion.

The PMT concurs with this recommendation. Detailed project-level design will be required to hone the concepts that emerge from the preferred alternative.

Federal Highway Administration (FHWA) approval is required for added or revised access on I-405, regardless of the source of funding for the construction project. The request for FHWA approval includes the Access Point Decision Report. This report follows FHWA policy (revised February, 1998, 63 FR 7045) that outlines eight policy requirements that must be addressed for each new access or access modification being considered. Two of the eight policy requirements are as follows:

Policy Requirement 3: The proposed access point does not have a significant adverse impact on the safety and operation of the Interstate facility based on an analysis of current and future traffic. The operational analysis for existing conditions shall, particularly in urbanized areas, include an analysis of sections of Interstate to, and including at least the first adjacent existing or proposed interchange on either side. Cross roads and other roads and streets shall be included in the analysis to the extent necessary to assure their ability to collect and distribute traffic to and from the interchange with new or revised access points.

Policy Requirement 6: In areas where the potential exists for future multiple interchange additions, all requests for new or revised access are supported by a comprehensive Interstate network study with recommendations that address all proposed and desired access within the context of a long-term plan.

These policy requirements will assure that alternatives are evaluated to minimize new access points to I-405 that do not fall within design standards or create safety or operational problems.

7. Verify population and employment forecast to avoid over or under built.

The DEIS 2020 forecasts are based upon the adopted PSRC regional land use plans. In addition, the project team considered land use adjustments in areas such as Redmond and Bellevue. For the PPA analysis, the team further adjusted the land use forecasts to account for the Port Quendall development in Renton and the UWBC campus in Bothell. In addition, 2030 forecasts were developed to identify future needs past the design year of 2020. More refined localized forecasts can be made as part of the project-level environmental processes.

8. If managed lanes not to be included in the preferred alternative, at a minimum, a buffer should be provided between GP and HOV lanes.

The project team concurs with this recommendation and will discuss this design approach with the committees